

Appl. No. 10/004,765  
Response Dated January 5, 2006  
Reply to Office Action of August 5, 2005

Atty. Docket No. 42390.P11401  
Examiner: Mattis, Jason E.  
TC/A.U. 2665

### **REMARKS**

Claims 1, 3-14, 16-21 and 23-33 remain standing in this application. Claims 2, 15 and 22 have been cancelled. Claims 1, 3, 6, 14, 16, 17, 21, 23, 24, 25 and 29 have been amended. No new matter has been added. Favorable reconsideration and allowance of the standing claims are respectfully requested.

While Applicant disagrees with the broad grounds of rejection presented in the Office Action, claims 1, 3, 6, 14, 16, 17, 21, 23, 24, 25 and 29 have been amended in order to expedite prosecution on the merits.

At page 2, paragraph 1 of the Office Action claim 6 stands rejected due to an informality. Applicant respectfully traverses the rejection based on the above amendments. Claim 6 has been amended in accordance with the Office Action, and removal of this rejection is respectfully requested. Applicant further submits that the above amendments were made to overcome the informality and were not made to overcome the cited references. Accordingly, these amendments should not be construed in a limiting manner.

At page 2, paragraph 3 of the Office Action claims 1-3, 7 and 11-13 stand rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent Number 5,410,540 to Aiki et al. ("Aiki"). Applicant respectfully traverses the rejection, and requests reconsideration and withdrawal of the anticipation rejection.

Applicant has cancelled claim 2. Therefore, the rejection with respect to claim 2 is rendered moot.

Applicant respectfully submits that to anticipate a claim under 35 U.S.C. § 102(b), the cited reference must teach every element of the claim. See MPEP § 2131, for

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example. Applicant respectfully submits that Aiki fails to teach each and every element recited in claims 1, 3, 7 and 11-13 and thus they define over Aiki. With respect to claim 1, as amended, Aiki fails to teach, among other things, the following language:

the first logic circuit further comprises a third logic circuit configured to determine one or more empty locations in the first memory to store the copies of the input data frame.

According to the Office Action, this language is disclosed by Aiki at column 4 line 58 to column 5 line 6 and Figure 1. Applicant respectfully disagrees. Aiki at the given cite, in relevant part, states:

Next, a method of controlling addresses of the shared buffer memory by the control section will be described by reference to FIG. 1. ATM cells received via the input ports are multiplexed by the multiplexer and are then stored via the copy section in the memory in a cell-by-cell fashion. In this operation, routing information of the additional header field of each cell is decoded by the decoder so as to attain an output port number. A value of a write address register (WAR) associated with the number is transferred as a write address WA via a line to the memory. In this situation, a next write address NWA is outputted from the buffer and is stored in memory according to an address identical to the write address WA of the ATM cell. Moreover, the next write address NWA is also stored in the write address register (WAR) having outputted the write address WA.

Applicant respectfully submits that at the above citation Aiki fails to disclose a logic circuit that is "configured to determine one or more empty locations in the first memory to store the copies of the input data frame," as recited in amended claim 1. Rather, Aiki discloses "a method of controlling addresses of the shared buffer memory by the control section...." Nowhere in the above citation does Aiki disclose determining one or more empty locations in the first memory to store the copies of the input data frame.

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Accordingly, Applicant respectfully submits that based on these differences alone, that amended claim 1 is patentable over Aiki.

Aiki mentions the word "empty" only at column 6, lines 19-20 where Aiki discloses "when the buffer is empty, the controller causes the selector to transmit the broadcast cells to the line," and further at column 7, lines 39-41 where Aiki discloses "when the ATM cell is empty according to the header information, the counter does not update the write address value." Causing the selector to transmit the broadcast cells to the line when the buffer is empty or not updating the write address value when the ATM cell is empty according to the header information, however, is different from a logic circuit configured "to determine one or more empty locations in the first memory to store the copies of the input data frame," as recited in amended claim 1.

Furthermore, additional differences exist between the claimed invention and Aiki. For example, in Aiki, the method of controlling addresses of the shared buffer memory is implemented by the buffer memory controller. The buffer memory controller in Aiki is separate and distinct from the cell copy section. In contrast, the claimed invention discloses that the first logic circuit further comprises a third logic circuit. Aiki fails to disclose this combination of the logic circuits.

Moreover, Aiki fails to disclose logic configured to "determine one or more empty locations in the first memory to store the copies of the input data frame," as recited in amended claim 1. Aiki merely discloses that "a value of a write address register (WAR) associated with the number is transferred as a write address WA via a line to the memory. In this situation, a next write address NWA is outputted from the buffer and is stored in memory according to an address identical to the write address WA of the ATM

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cell.” Nowhere does Aiki disclose determining one or more empty locations in a memory to store copies of the input data frame.

Consequently, Aiki fails to disclose all the elements or features of the subject matter recited in amended claim 1. Accordingly, Applicant respectfully requests removal of the anticipation rejection with respect to claim 1 and with respect to claims 3, 7 and 11-13, which depend from claim 1 and, therefore, contain additional features that further distinguish these claims from Aiki.

At page 5, paragraph 5 of the Office Action claims 4-6 and 14-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Aiki in view of United States Patent Number 5,646,886 to Brahmhatt (“Brahmhatt”). Applicant respectfully traverses the rejection, and requests reconsideration and withdrawal of the obviousness rejection.

Applicant has cancelled claim 15. Therefore, the rejection with respect to claim 15 is rendered moot.

The Office Action has failed to meet its burden of establishing a *prima facie* case of obviousness. According to MPEP § 2143, three basic criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

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As recited above, to form a *prima facie* case of obviousness under 35 U.S.C § 103(a) the cited references, when combined, must teach or suggest every element of the claim. See MPEP § 2143.03, for example. Applicant respectfully submits that the Office Action has not established a *prima facie* case of obviousness because the cited references, taken alone or in combination, fail to teach or suggest every element recited in claims 4-6, 14 and 16-18. Therefore claims 4-6, 14 and 16-18 define over Aiki and Brahmbhatt whether taken alone or in combination. For example, claim 14, as amended, recites the following language, in relevant part:

the first logic circuit further comprises a third logic circuit  
configured to determine one or more empty locations in the  
memory to store the copies of the input data frame.

According to the Office Action, the missing language is disclosed by Aiki at column 4, line 58 to column 5 line 6 and Figure 1 as discussed above. Applicant respectfully disagrees. Claim 14 has been amended to recite features similar to those recited in claim 1. Therefore, for reasons analogous to those presented with respect to claim 1, Applicant respectfully submits that the above-recited language of claim 14 is not disclosed by Aiki. Furthermore, Applicant respectfully submits that Brahmbhatt fails to teach or suggest the missing language. As such, Brahmbhatt is insufficient to remedy the deficiencies of Aiki to establish a *prima facie* case of obviousness with respect to claim 14. Applicant respectfully submits that claim 14 is allowable for at least these reasons. Accordingly, removal of the obviousness rejection with respect to claim 14 is respectfully requested.

Furthermore, if an independent claim is non-obvious under 35 U.S.C. § 103, then any claim depending therefrom is non-obvious. See MPEP § 2143.03, for example. Accordingly, removal of the obviousness rejection with respect to claims 16-18 is

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respectfully requested. Applicant respectfully submits that claims 16-18 are non-obvious and patentable over Aiki and Brahmbhatt, taken alone or in combination, at least on the basis of their dependency from claim 14. Applicant, therefore, respectfully requests the removal of the obviousness rejection with respect to these dependent claims.

Moreover, Applicant respectfully submits that Brahmbhatt fails to teach or suggest each and every element recited in amended claim 1. As such, Brahmbhatt is insufficient to remedy the deficiencies of Aiki to establish a *prima facie* case of obviousness with respect to claim 1 as well as dependent claims 4-6. Applicant respectfully submits that claims 4-6 are allowable for at least these reasons. Accordingly, removal of the obviousness rejection with respect to claims 4-6 is respectfully requested.

At page 10, paragraph 8 of the Office Action claims 21-22, 26 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Aiki in view of United States Patent Number 6,724,761 to Moy-Yee et al ("Moy-Yee"). Applicant respectfully traverses the rejection, and requests reconsideration and withdrawal of the obviousness rejection.

Applicant has cancelled claim 22. Therefore, the rejection with respect to claim 22 is rendered moot.

Claims 21 and 29, as amended, recite features similar to those recited in amended claims 1 and 14. Therefore, for reasons analogous to those presented with respect to claims 1 and 14 above, Applicant respectfully submits that Aiki fails to disclose all the elements or features recited in claims 21 and 29. Furthermore, Applicant respectfully submits that Moy-Yee fails to teach or suggest each and every element recited in claims 21 and 29. In the Office Action, Moy-Yee was relied upon as disclosing "using a

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microprocessor and software on a computer readable medium to store and execute instructions for operating a switching apparatus...See column 5 lines 45-51 of Moy-Yee et al." Office Action, page 12, lines 10-13. As such, the relevant part of Moy-Yee is insufficient to remedy the deficiencies of Aiki to establish a *prima facie* case of obviousness with respect to amended independent claims 21 and 29 as well as dependent claim 26. Applicant respectfully submits that claims 21, 26 and 29 are allowable for at least these reasons. Accordingly, removal of the obviousness rejection with respect to claims 21-22, 26 and 29 is respectfully requested.

At page 8, paragraph 6 of the Office Action claims 8-9 and 19-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Aiki in view of Brahmabhatt and further in view of United States Patent Number 6,574,194 to Sun et al ("Sun"). Applicant respectfully traverses the rejection, and requests reconsideration and withdrawal of the obviousness rejection.

Applicant respectfully submits that Sun fails to teach or suggest each and every element recited in independent claims 1 and 14. In the Office Action, Sun was relied upon as disclosing "determining the size of a data frame and determining how many address locations are needed for the frame...See column 4 lines 58-64, column 6 line 64 to column 7 line 30 and Figures 2, 3A and 3B of Sun et al." Office Action, page 8, lines 14-17. As such, the relevant part of Sun is insufficient to remedy the deficiencies of Aiki and Brahmabhatt to establish a *prima facie* case of obviousness with respect to amended independent claims 1 and 14 as well as dependent claims 8-9 and 19-20. Applicant respectfully submits that claims 8-9 and 19-20 are allowable for at least these reasons.

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Accordingly, removal of the obviousness rejection with respect to claims 8-9 and 19-20 is respectfully requested.

At page 9, paragraph 7 of the Office Action claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Aiki in view of United States Patent Application Publication Number 2005/0041579 to Medina et al ("Medina"). Applicant respectfully traverses the rejection, and requests reconsideration and withdrawal of the obviousness rejection.

Applicant respectfully submits that Medina fails to teach or suggest each and every element recited in independent claim 1. In the Office Action, Medina was relied upon as disclosing "using a distributed memory in a switch...See page 2 paragraphs 19-21 and Figure 2 of Medina et al." Office Action, page 9, lines 12-14. As such, the relevant part of Medina is insufficient to remedy the deficiencies of Aiki to establish a *prima facie* case of obviousness with respect to amended independent claim 1 as well as dependent claim 10. Applicant respectfully submits that claim 10 is allowable for at least these reasons. Accordingly, removal of the obviousness rejection with respect to claim 10 is respectfully requested.

At page 13, paragraph 9 of the Office Action claims 23-25 and 30-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Aiki in view of Moy-Yee and further in view of Brahmhatt. Applicant respectfully traverses the rejection, and requests reconsideration and withdrawal of the obviousness rejection.

Applicant respectfully submits that Moy-Yee and Brahmhatt, taken alone or in combination, fail to teach or suggest each and every element recited in independent claims 21 and 29. In the Office Action, Brahmhatt was relied upon as disclosing "a



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memory comprised of independently address segments including independently addressable channels...See column 7 line 37 to column 8 line 26 and Figure 5 of Brahmbhatt." Office Action, page 14, lines 11-14. As such, Moy-Yee and Brahmbhatt, taken alone or in combination, are insufficient to remedy the deficiencies of Aiki to establish a *prima facie* case of obviousness with respect to amended independent claims 21 and 29 as well as dependent claims 23-25 and 30-32. Applicant respectfully submits that claims 23-25 and 30-32 are allowable for at least these reasons. Accordingly, removal of the obviousness rejection with respect to claims 23-25 and 30-32 is respectfully requested.

At page 15, paragraph 10 of the Office Action claims 27-28 and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Aiki in view of Moy-Yee and further in view of Sun. Applicant respectfully traverses the rejection, and requests reconsideration and withdrawal of the obviousness rejection.

Applicant respectfully submits that Moy-Yee and Sun, taken alone or in combination, fail to teach or suggest each and every element recited in independent claims 21 and 29. In the Office Action, Sun was relied upon as disclosing "determining the size of a data frame and determining how many address locations are needed for the frame...See column 4 lines 58-64, column 6 line 64 to column 7 line 30 and Figures 2, 3A and 3B of Sun et al." Office Action, page 15, lines 17-20. As such, Moy-Yee and Sun, taken alone or in combination, are insufficient to remedy the deficiencies of Aiki to establish a *prima facie* case of obviousness with respect to amended independent claims 21 and 29 as well as dependent claims 27-28 and 33. Applicant respectfully submits that

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claims 27-28 and 33 are allowable for at least these reasons. Accordingly, removal of the obviousness rejection with respect to claims 27-28 and 33 is respectfully requested.

Even if Aiki could be combined with Brahmbhatt, Sun, Medina or Moy-Yee, which Applicant does not admit, such combination fails to teach or suggest all of the features of independent claims 1, 14, 21 and 29 and thus is insufficient to establish a *prima facie* case of obviousness with respect to the independent claims. Moreover, Applicant respectfully submits that there is no motivation to combine the teachings of Aiki with Brahmbhatt, Sun, Medina or Moy-Yec and there is no reasonable expectation of success to make such combination. Furthermore, as previously stated, if an independent claim is non-obvious under 35 U.S.C. § 103, then any claim depending therefrom is non-obvious. *See* MPEP § 2143.03, for example.

For at least the reasons given above, claims 1, 3-14, 16-21 and 23-33 are non-obvious and represent patentable subject matter in view of the cited references, whether taken alone or in combination. Accordingly, removal of the obviousness rejection with respect to claims 1, 3-14, 16-21 and 23-33 is respectfully requested.

For at least the above reasons, Applicant submits that claims 1, 3-14, 16-21 and 23-33 recite novel features not shown by the cited references. Further, Applicant submits that the above-recited novel features provide new and unexpected results not recognized by the cited references. Accordingly, Applicant submits that the claims are not anticipated nor rendered obvious in view of the cited references.

Applicant does not otherwise concede, however, the correctness of the rejection with respect to any of the dependent claims discussed above. Accordingly, Applicant hereby reserves the right to make additional arguments as may be necessary to further

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distinguish the dependent claims from the cited references, taken alone or in combination, based on additional features contained in the dependent claims that were not discussed above. A detailed discussion of these differences is believed to be unnecessary at this time in view of the basic differences in the independent claims pointed out above.


It is believed that claims 1, 3-14, 16-21 and 23-33 are in allowable form.

Accordingly, a timely Notice of Allowance to this effect is earnestly solicited.

The Examiner is invited to contact the undersigned at 724-933-5529 to discuss any matter concerning this application.

Respectfully submitted,

KACVINSKY LLC

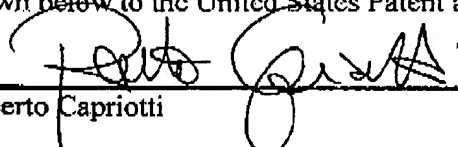
  
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Under 37 CFR 1.34(a)

Dated: January 5, 2006

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